

Appendix A

Overview of Selected Variable Pay Plans from Other States

Colorado: Denver Public Schools

Denver Public Schools, enrollment approximately 74,000 students, began a pilot individual teacher pay plan in 1999-2000 with planned implementation district wide by the 2001-2002 school year. Recently the decision was made to extend the pilot through the 2002-2003 school year. A pay for performance component for administrators was also implemented, but has since been terminated. While this is an individual merit pay model, it is summarized here because the model has implications for team-based variable pay and because it is an example of a contemporary individual merit pay model.

A four-person Design Team with equal union and administration representation was formed to oversee the design and implementation of the pilot program. The design began with three different approaches to measuring teacher performance (a) student achievement as measured by scores on the ITBS, (b) student achievement as measured by criterion-referenced tests and other teacher-created measures, and (c) teacher acquisition of knowledge and skills specifically related to improved students achievement and behavior (a requirement to link some form of student achievement to this approach was added late in the 1999-2000 school year) (Consortium for Policy Research in Education, 2000). The mix of approaches was a compromise between school board, who wanted pay based on test scores, and teacher union, who favored a link to enhancements in teachers' knowledge and skills. However, in practice, the goals didn't break down neatly into these three discernable types. Each participant collaborates with their principal or supervisor and the Design Team to establish two performance objectives based on school or district goals (Bradley, 1999). Meeting the two goals earns a bonus of \$1500 for the teacher.

The Community Training and Assistance Center (2001) was commissioned in November 1999 to conduct a comprehensive study of the impact of the pilot and to provide ongoing technical assistance to help assure a pilot of quality and integrity. The Community Training and Assistance Center is using control schools to compare student progress. Their first report was published in December 2001. One of their major findings involved the objectives written by the teachers. The objectives were rated on a four-point scale including measures on how well the teachers explained their rationales and how clearly their expectations were elucidated. They found that the teachers whose objectives earned the highest scores tended to see the greatest gains in student performance on the ITBS and the Colorado Student Assessment Program (CSAP) whether or not the teachers actually met their objectives and won bonuses.

Training on the new program was available to all teachers. Teachers value the training that they have received, but expressed a need for more professional development (Community Training and Assistance Center, 2001).

One of the major obstacles was the availability of assessment data (Archer, 2001). Colorado's state exam system is not yet set up to track individual students. And, while the ITBS was used in

the district, the assessment wasn't aligned with either local or state standards. Also some subjects such as music or American government were not covered by an exam. The tasks of producing individual student achievement data for teachers, and of linking student results to specific teachers, proved more difficult than originally anticipated (Community Training and Assistance Center, 2001).

Colorado: Douglas County Schools

Douglas County School District is a fast growing, geographically large district with generally high academic achievement, high per capita income, and parents with high levels of education. The district with an enrollment of approximately 30,000 students began to implement a new pay plan during the 1994-95 school year. The refined plan is still in force. The objectives of the plan were to (a) support the district's mission and core values; (b) attract, retain, and motivate the highest possible qualified teachers; (c) reward growth, development and skill and knowledge acquisition; (d) provide stability; and (e) ensure teacher involvement in the development, evaluation, and reward process (Kelley, 2000). The plan includes team-based variable pay paid to the teacher as well as individual merit pay. The pay plan is extremely comprehensive and includes:

1. Base pay.
2. Pay for knowledge (education units and degrees).
3. Pay for years of proficient experience (must receive at least a "proficient" rating on annual evaluation).
4. Pay for specific responsibilities (spelled out in contract).
5. Outstanding teacher bonus award (\$1000) based on a portfolio.
 - a. District-developed criteria in assessment and instruction, knowledge of content and pedagogy, and collaboration and partnership;
 - b. Standards based instruction, highlights teacher efforts and success at implementing district academic standards; or
 - c. National Board Candidates.
6. Skill-based pay (pay for the development of skills identified by the district);
7. Responsibility pay includes site responsibility pay such as extra-curricular activities, committee work, and mentorship participation or district responsibility pay such as team or committee work;
8. Group incentive pay (planned effort to improve a specific student performance objective) (Hartman and Weil, 1997).

The group incentive pay portion offers pay bonuses to all teachers in a school or to groups of teachers within a school who successfully undertake a specially designed plan to improve student performance "above the local standard" of the target group. The teachers submit performance proposals setting their own criteria for success to a review committee. The goals are teacher designed, student focused, and linked to school and/or district objectives. The group incentive award was designed to encourage cooperative efforts within schools to work on common goals that directly impact student performance. Participation is voluntary, and the plans may be single year or cover up to three years. A teacher may participate in only one group incentive plan per year. The pay for the group incentive is a pool of money set aside with all teachers successfully implementing processes receiving an equal share. For example, in 1998-99 36 groups applied

for the group incentive pay and 33 groups were successful. Payment per participant in that year was \$413.

The program incorporated findings from research on compensation plans in the private sector into a public school district. The leadership found that developing a performance pay plan required a great amount of time, patience, and commitment. An advantage noted was consistent leadership that understood that making meaningful change required taking risks. The focus was on system-wide acceptance that performance pay is a process and not an event. The planning included teachers, parents, and community members. The collaborative nature in which the plan was developed has been deemed a strength. Some participants noted the most difficult and most important part of developing and implementing the performance pay system to be internal and external communication. The plan offers a variety of opportunities to participate and be rewarded.

The plan was evaluated in the first and third years of implementation by external evaluators Gene Hall and Edward Caffarella (1998). Indications of increased teacher involvement in schoolwide goals and agendas were reported. Teachers reported seeing links between what they do and the school improvement plan. Teachers also indicated that the plans had a positive effect on student performance. An increase in collegiality across department levels and teams was also reported as a result of the group incentive plans. Hall and Caffarella reported that the group incentive portion of the plan had emerged as the most powerful and widely accepted component. They also suggested that consideration to incorporate multi-year continuity should be given to group incentive plans.

Hall and Caffarella (1998) found that group incentive lead teachers could benefit from specialized training in leadership and facilitation skills. The plan requires individual teachers to take time to put together an application. Hall and Caffarella suggested that consideration be given to providing additional pay for those teachers who lead the development and implementation of the group incentive plan. Apparently this suggestion was followed as the 2001-2002 group incentive plan compensation includes a separate stipend for the group incentive plan coordinators (Douglas County Schools Group Incentive Board, 2001). Caution was given that the concept of performance pay prohibits the use of quotas and requires funding stability. Hall and Caffarella also noted that some teachers stated that the pay was not worth the effort.

Colorado: Jefferson County

Jefferson County School District, enrollment approximately 85,000, piloted both group and individual performance pay during the 1995-1996 school year. The program was last implemented in 1997-1998. According to Goff (personal communication, February 1, 2002), the Building Based Awards program was not discontinued outright just put on hold for future consideration along with other possible compensation plans when and if enough money became available. The program was a volunteer program designed to encourage school staffs to work as a team, to focus on goals and activities that increase student performance, and to recognize schools that achieve significant changes in student achievement with a monetary reward for all licensed and classified staff members. Schools applied for participation. The staff of schools that met their goals received \$1000 for each certificated employee and \$400 for each classified employee. Of the 14 participating units in 1997-98, 10 met or exceeded their goals completely

and the remaining four reached at least one goal completely and averaged at least 74% completion of all goals (Adsit, Carpenter, & Goff, 1998).

Evaluation included a survey of all participants, focus groups, and a request for suggestions to improve the program. Survey results indicated overwhelming support for the program among participants. Focus groups were also very positive, but also expressed concerns with the early implementation processes. The need for more assistance early in the program to set goals and select appropriate measurement tools was articulated. Better assessments that were more clearly aligned with instructional goals were also needed.

While Jefferson County discontinued the Building Based Awards, they plunged into another type of merit pay. A levy passed in the fall of 2000, providing the district with \$25 million more each year. In addition, if the composite district scores on the statewide assessment increase by 25% by 2003, an additional \$20 million per year above that is promised. This is called the *Performance Promise* made to voters in order to get the mill increase passed. Incremental increases will also bring increases in funding.

Georgia

Georgia's Pay for Performance Program has grown considerably since its implementation in 1993. The program provides a group incentive award to schools that demonstrate exemplary performance and collaboration. Awards are made to schools rather than to individuals. An individual award component was also included, but was never funded. Application to the program is voluntary and must be completed annually. Applications that are not approved may be resubmitted with recommended changes. Each school is required to develop a unique set of objectives and measures tailored for their students. Performance objectives that address academic achievement (50-70%), client involvement (10-40%), educational programming (10-40%), and resource development (10-40%) must be included. Eighty percent of the weighted performance objectives must be met in order to receive an award. To be approved objectives in the application must be judged to be exemplary considering the circumstances of the school. The amount of the award is based on the number of certified staff assigned to the school and the amount of funds appropriated each year.

The TBVP program has grown rapidly since its implementation. During the 1993-1994 school year 67 applications were received, 18 approved, and 10 earned awards. In contrast, during the 1998-1999 school year 266 applications were received, 155 approved, and 100 earned awards. Almost all of the TBVP recipients included performance objectives in reading and mathematics. Data from a survey conducted by the Georgia Department of Education show that long-term improvements resulting from participation in the TBVP include improved student achievement, increased faculty collaboration, increased focus on important school goals, improved faculty morale, increased professionalism, improved student morale, improved school climate, increased parent involvement, increased community involvement, improved use of technology, and increased ability to evaluate the school.

The Georgia Department of Education (2000) found that during the 1996-97, 1997-98, and 1998-99 cycles, mean ITBS Total Reading and Total Math test scores of schools participating in that

states TBVP program were significantly higher than scores of other schools in the state at grades three, five, and eight. The demographics of the TBVP schools were similar to the state as a whole during those years. Average student scores of schools involved in TBVP in 1993-94, 1994-95, and 1995-96 were also higher than other schools in the state, but the number of schools was too small and unrepresentative to make meaningful comparisons. The number of high schools receiving awards in any year was too small to make meaningful comparisons.

The study also found high negative correlations between the socioeconomic variable and ITBS Total Reading and Total Math scores across all grades and years. The study cautions that the ranking of test scores that does not control for difference in students' entry level academic performance will result in "misleading information about the impact of faculty performance on student achievement."

Kentucky

Kentucky implemented a statewide performance award first implemented during the 1992-1993 school year using baseline data from 1991-1992. The legislation came as a response to a court decision in the late 1980's that determined that significant inequities existed between rich and poor school districts in Kentucky. The Kentucky Instructional Results Information System (KIRIS) was developed with five goals: (a) to motivate teachers and other to attain dramatically higher performance; (b) to focus the attention on the goals of the Kentucky Education Reform Act (KERA) of 1990; (c) to encourage integration among KERA's goals; (d) to give students, educators, and parents better information regarding instruction and performance; and (e) to provide reliable information for education consumers to judge the educational system. The long-term goal is that all Kentucky students will attain the proficient level by 2014 (Hoff, 2001). This requires low performing schools to make more growth each year than higher-achieving ones (Jacobson, 1999). Some schools including those in Louisville, the largest and most urban district in Kentucky, have lobbied that the expectations should be lower for schools with high rates of poverty, student mobility, special education students, and single-parent households (Johnston, 2000).

The performance award program makes awards to schools not to individual teachers. Schools are evaluated on a two-year cycle. Original system components included KIRIS assessments in reading, writing, mathematics, science, and social studies in grades 4, 8, and 11 aligned with the state curriculum standards. The framework for the KIRIS assessment was modeled after the framework of the NAEP. The grades in which the assessments were administered varied somewhat as the program matured. An interdisciplinary component was added during the second year including assessments in arts and humanities, practical living, and vocational education. In 1998, Kentucky changed its assessment contractor to CTB/McGraw-Hill Alliance. In 1999, students from grades 3 through 12 received some type of assessment (Petrosko, 2000). Also, in 1999 students completed both multiple-choice items and open-response items as a part of the CATS assessment. The change in performance is examined in two ways, absolute performance level change and the extent to which a school has progressed toward meeting its performance goal. Scores on the KIRIS assessment were combined with other variables such as dropout rates to compute an accountability index. Each school's accountability index is compared to its baseline and improvement goal. The scores on the accountability index are

reported each year, but schools are formally evaluated on the basis of change over a two-year period. Each school is assigned a performance target based on past performance. Under KIRIS, the data are used to assign the schools to one of five categories: (a) eligible for monetary rewards, (b) successful, (c) not meeting threshold or improving, (d) in decline, and (e) in crisis (Council of Chief State School Officers, 1998). The Crisis category has been eliminated with moved to the in decline category. Schools that exceeded their targets by a sufficient margin were given cash rewards. The reward varies based on how many schools attain award status in a particular cycle. Schools that fell below the target by a sufficient amount were sanctioned.

The responsibility for most administrative and instructional decisions was retained at the school level. There is no formal collective bargaining for any public employees in Kentucky although many school districts have voluntary agreements with teachers. Additional benefits to students and teachers have also occurred. Profession development for educators changed in type, role, and function. Funding for professional development has increased during the last decade from \$1 per student to \$25 per student (Willis et al., 1999). Teachers reported that the portfolio program in KIRIS had increased the amount of innovation in their planning and had at least a moderate positive effect on instruction in their schools (Willis, et al., 1999). Family Resource Centers and Youth Service Centers were created to help build a link between families, schools, and the community as a whole. A voluntary preschool program was created to function collaboratively with the Head Start program. An Extended School Services program for students needing additional time outside the standard classroom to meet the achievement expectation for entering fourth grade was implemented.

Petrosko (2000) cites three generalizations based on studies of school accountability that have been completed to date. First, Kentucky school accountability procedures have had definite effects on instruction. Students are spending more time writing and engaging in other classroom activities that are similar to those required by state assessments. Second, the threat of sanctions has been a more powerful motivator for teachers than the cash school awards. Third, the extrinsic motivation of KERA will probably be less significant, in the long run, than the intrinsic motivation that is typically important to teachers.

Considerable research has been completed on the Kentucky school-based performance award. Large gains in scores on the KIRIS assessment were reported during the first few years of the assessment. Proponents of the KERA program announced the gains as an indication of success. A study by Koretz and Barron (1998) was undertaken to explore the validity of the claims. They discuss reasons that the gain scores may have been inflated during the period from 1992 to 1996. Overall, results released by the Kentucky Department of Education in October 2001 show mixed achievement improvements. Performance generally increased since the 1992-1993 school year, but the magnitudes vary.

In 1997 a problem with the programming on the assessment key by the testing contractor resulted in an increased outcry against the existing assessment. So, in 1998 Kentucky House adopted significant changes to the assessment program in response to many issues and concerns. The changes included a new assessment and accountability system. The Commonwealth Accountability and Testing System (CATS) replaced the Kentucky Instructional Results Information System (KIRIS) for the 1998-99 school year.

A study by The Evaluation Center at Western Michigan University found that only a small number (generally in state- or district-level positions) knew about the rewards and sanctions programs. Many teachers were uninformed. Another study (Hambleton et al., 1995) focused on psychometric issues and recommended changes in the calculation of accountability scores. This study noted that achievement results are mixed. A perceived design problem is that the awards are based on comparisons between different cohorts of students. A recommendation was made that the accountability system should be simplified and certain information should be reported to the public in the form of a school report card. Concerns have also been expressed about the reliability of the school accountability scores (Petrosko, 2000). The Kentucky Department of Education has conducted studies on the problem and concluded that their results indicate an acceptable level of consistency. Petrosko states that “even if the assessment data were the most reliable and valid that could be used, there would be debate about how to convert academic achievement data and non-cognitive data into value judgements about schools.”

Kelley and Protsik (1997) studied the Kentucky school-based performance award program in six award winning elementary and middle schools in the Louisville-Frankfort-Lexington area through interviews with principals and teachers. While each of the schools improved test scores over the first biennium, they varied in the extent to which school improvement appeared to be long-term and pervasive. The schools that continued to show improvement over time had developed systemic strategies to improve student performance on the state assessment.

Willis et al. (1999) notes that although Kentucky’s accountability and assessment program “has been under constant review and at times harsh criticism, the funds appropriated for it have remained largely intact...suggests that the potential issue of whether funding would continue was not a major concern to policy makers but rather how the funds would be deployed.”

Massachusetts: Boston

The Boston School Improvement Award grew out of the work of the Second Boston Compact in the early 1990’s. Awards are made to schools and not to individuals. The TBVP was to have four components: (a) performance indicators, (b) ways to measure growth and status, (c) procedures for assigning points to each indicator, and (d) procedures for allocating available funds across eligible schools (Schwedel et al., 2000). Annual analysis measures were designed to measure changes in schools as a whole. Improvement measures, including non-academic annual measures of attendance and dropout rates as well as scores on the SAT-9 and the state’s MCAS, are calculated year to year from school to school. Then schools are rank ordered by school level. The program is funded by a \$500,000 allocation earmarked for school improvement awards to be divided among the eligible schools. Two categories of awards are available: (a) improved student achievement (the bulk of the funds are awarded in this category) and (b) successful implementation of education reform efforts.

New programs have been developed in Boston during the 1990’s including continued movement toward school-based management, the initiation of the Center for Leadership Development, creation of a Lead Teach position, and development of pilot schools. No studies were found that studied the effect of TBVP in Boston on Student achievement. Schwedel et al. (2000) noted that

anecdotal evidence suggests that the monetary awards to successful schools are “very much appreciated but they are not perceived by school personnel as a strong motivational tool...Schools are striving to improve teaching and learning because that is the clear mission as described in the district’s strategic plan.” Boston’s TBVP is a work in progress. More innovations and changes are expected as the program matures. Schwedel, et al. also notes that from the start the TBVP was seen as one part of the overall effort to improve schools that was viewed positively by the union, administration, and the public.

Maryland

In Maryland schools and school systems are rated on the performance of their students on: (a) performance on the Maryland School Performance Assessment Program (MSPAP) in reading, writing, mathematics, social studies, language usage, and science and on the Maryland Functional Tests (MFT) in reading, mathematics, writing, and citizenship; (b) attendance rates; and (c) dropout rates (Consortium for Policy Research in Education, 1999). Under the Maryland School Performance Program (MSPP) rewards are given to schools based on results on the MSPAP and attendance rates. The reward for the first year is a certificate of recognition. Schools that demonstrate significant and sustained improvement over a two-year period receive a monetary award. Awards are given to schools and not to individuals. Monetary awards have ranged from \$19,600 to \$79,000 per school with an average award of \$41,000 (Council of Chief State School Officers, 1998).

No studies could be found that investigated the benefits and concerns of this program. The program provides an incentive for schools to continue to make improvements and public recognition for the work of teachers, principals, parents, and community members in bringing about positive change in student learning (Maryland State Department of Education, 1999).

New Jersey

An Academic Achievement Reward Program with \$10 million awarded annually to schools that attain absolute success in or significant progress toward student achievement standards as measured by the state assessment system was implemented in New Jersey (Council of Chief State School Officers, 1999). Schools must have 90% of their students meeting state standards to receive the absolute success reward. The remaining schools are eligible for the significant progress reward. The reward is based on a per pupil amount determined by the number of students taking the test in each of the qualifying schools.

No studies could be found that investigated the benefits and concerns of this program.

North Carolina

A statewide accountability program, ABCs of Public Education (**A**: accountability with an emphasis on high educational standards, **B**: teaching the basics, and **C**: maximum local control), began on a pilot basis in ten districts in 1995 and was formalized by law in 1996. The ABCs program was designed to resolve several problems with most recent accountability program (1) individual schools could hide its own test performance scores by averaging them with the

district's scores; (2) accountability indicators were too complex; and (3) not viewed as having serious consequences that inspired principals and teachers to concentrate on student outcomes. The program was implemented in elementary and middle schools in 1996-97 and in high schools in 1997-98. The system has strong focus on direct measures of student achievement. Certified and noncertified staff members are included, but the building as a whole must qualify. The building also receives recognition in the form of plaques, banners, and positive press releases. No limit is placed on the number of schools that can be recognized (North Carolina State Department of Public Instruction, 2000). The gain for each student is based on a value-added concept that focuses on changes in student performance from one year to the next and can be calculated for each student in a school. Elementary and middle schools are measured using state-developed tests called the end-of-grade tests in reading and mathematics in grades three through grade eight and on a holistic writing assessment in grades four and seven. Schools must test 98 percent of their eligible students. High schools are measured using state-developed multiple choice tests in algebra I, English I, biology, U. S. history, economics, legal and political systems, as well as a writing essay test given in English II. Again there is a percent tested requirement. High schools are also required to submit the percent of students completing a College Prep or College Tech course of study. The State Board of Education indicated that more than twice as many K-8 schools reached exemplary status in 1997-98 than in 1996-97. The expected growth for a school is based on its previous performance, the statewide average growth, and a statistical adjustment (regression to the mean). The schools are categorized into five groups: (1) exemplary, (2) meeting expected growth (not exemplary), (3) adequate performance (no recognition), (4) low-performing schools, and (5) violated testing requirements. Certified staffs in schools that make exemplary growth receive \$1,500 and teacher assistants receive \$500. In schools that make expected growth the bonuses are \$750 and \$375 (Johnson et al., 1999).

Charlotte-Mecklenburg Public Schools implemented a widely publicized local school-based performance award program (the Benchmark Goals Program) during the 1992-93 school year. After the state initiated its program Charlotte-Mecklenburg aligned its program with the state's program.

The Department of Public Instruction has examined what made a difference in the most improved schools to improve school achievement (North Carolina State Department of Public Instruction, 2000). They noted that the staffs of the most improved schools reviewed existing student test data to develop instructional and curricular goals.

Assistance teams are provided for low performing schools. Some teachers in the low performing schools were found to be unfamiliar with the Standard Course of Study. Assistance teams found that "to sustain the growth of low-performing schools requires strong leadership, focus to the school, stable professional staff, ongoing support and technical assistance, parental involvement, and responsible decision-making" (North Carolina State Department of Public Instruction, 2000).

The value-added model is complex and controversial. The John Locke Foundation, a conservative research group, claims the method used to calculate school performance misleads the public about actual performance of the students. It claims that "the emphasis on 'growth' shifts attention from student achievement to a manufactured 'feel good' measure". State officials state that both measures are important (Manzo, 1998). Challenges concerning the effective

communication of what the assessment and accountability results mean were also reported. Proponents argue that the value-added model personalizes to a particular school context. Value-added also can provide a more micro-level analysis of student performance because it is looking at improvements in performance of the same group of students.